

# CREAM OF THE CROP

## Graduating careers class celebrates with mini expo

KIDS@DEMODAIRY celebrated a successful end to 2014 with a mini-expo at DemoDAIRY on December 5.

The 2014 graduating group of grade 6 kids@demoDAIRY finished their two years of investigation into the dairy industry with a mini science expo looking at soil, udder health and heifer growth.

The program was initiated after WestVic Dairy's careers co-ordinator Robyn Vale was approached by Nullawarre dairy farmer, Shirley Spitse, asking for ways to promote the dairy industry in her daughters' school.

Kids@demoDAIRY ran its first full year in 2011 with Nullawarre students and was extended to include students from Panmure and Cudjee Primary Schools in 2013.

As part of the program, which received additional funding from Gardiner Foundation for the first two years, grade 5 and 6 students from participating schools visit DemoDAIRY once each term for two years.

Over the course of their

eight visits, students investigate different aspects of agricultural and environmental science and learn about the seasonal activities, business and practical skills required for dairying. Visiting service providers also introduce students to a range of dairy careers on and off-farm.

Back in the classroom, the hands-on experiences they enjoy on the farm are drawn on to support their curriculum in maths, science, literacy, civics and citizenship and personal development.

WestVic Dairy's careers co-ordinator Robyn Vale said the program not only had proven to have a positive impact on student learning outcomes and on their attitude to school, but had fed into DemoDAIRY's delivery of programs to other visiting schools, including those that visit from beyond the region.

"Kids@demoDAIRY is a great program, which allows schools to integrate active and hands-on learning into the curriculum," Ms Vale said. "It also promotes the

diversity and importance of the dairy industry."

As part of the final 2014 visit, DeLaval's Brendan Hyland introduced students to the science behind milk testing and its role in managing cow health and milk quality.

It was a simple activity: students tested milk manually and with a milk testing machine, sprayed a (fake) udder and discussed the reasons for doing so.

Mr Hyland said the students' grasp of the science was so good he stepped up the level of the complexity of the discussion.

He said after one year (grade 5) or two years (grade 6) of kids@demoDAIRY "these kids really knew their stuff".

The schools will be looking for sponsorship support to keep the program going into and beyond 2015.

In 2015 they will also be investigating ways to integrate a learning pathway from prep all the way to the grade 5/6 program, drawing on the interest and agricultural expertise of their own communities.



Brendan Hyland, from DeLaval, introduces kids@demoDAIRY students to milk testing.

## WestVic chairman wins spot on Dairy Australia board



Lisa Dwyer, newly appointed to the board of Dairy Australia.

WHEN Macarthur dairy farmer Lisa Dwyer took on the role of WestVic Dairy chairman, she would have never imagined that she would be accepting a board position with Dairy Australia only 13 months later.

Mrs Dwyer was approached to consider a nomination for the Dairy Australia board and underwent the rigorous selection process earlier this year. Her position was confirmed at Dairy Australia's AGM on November 28, 2014, after being challenged by fellow south-west Victorian dairy farmer, Michael Spitse.

"I would never have considered a nomination, if it wasn't for the encouragement of people whom I respect highly," she said.

"People say all the time that events in their lives are an honour and a privilege but to me, I cannot express how true this really is. It

is not a role that I would ever underestimate or take lightly."

Mrs Dwyer had been a member of the WestVic Dairy board for three years before being appointed chairman in September 2013. She also farms an 850-acre dairy enterprise known as Kangertong Pastoral with her husband and son.

The Dwyers purchased the farm in 2004, with additions made to the property during the past nine years.

Prior to working on-farm full-time, Mrs Dwyer worked in the private sector as region services manager with Racing Victoria Ltd, which included clubs from Geelong to the South Australian border.

Mrs Dwyer is concerned with achieving a balance between economics, the environment and social aspects of modern farming

practices. Mrs Dwyer is also a recent graduate of the Australian Rural Leadership Program and a graduate of the Australian Institute of Company Directors.

"I am confident that my wider career, corporate governance and leadership experience will not only afford me a broader perspective of the initiatives that really matter to dairy farmers and to the industry, but will also ensure I am well-equipped for a director role with Dairy Australia," she said.

Being the current chairman at WestVic Dairy, Mrs Dwyer has had a first-hand experience of the challenges and opportunities that go hand-in-hand with being part of one of Australia's most important dairy regions.

She said that during her time at WestVic Dairy, the organisation had embarked on fundamental change

driven by a singular focus — delivering on the things that mattered to farmers in the region.

"WestVic Dairy has a dedicated and passionate team that is genuinely interested in providing farmers with the support they need to make their farms more profitable," she said.

Mrs Dwyer said that dairy was a fantastic industry with enormous potential to provide opportunity and reward for everyone.

"We need to be vigilant in shaping its growth and development, not just regionally but nationally," she said.

"My husband and I have been the beneficiaries of the levy investments made in the past and I would like to ensure that the dairy generations to come will have the same, if not better, returns from the investments we make today."

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**WESTVIC DAIRY INC. (WVD)** is the dairy industry development body for Western Victoria and aims to help advance the dairy industry in the region.

WVD regularly collects the priorities of the region's dairy farmers and allocates part of their service levy (collected by Dairy Australia) to those research and development priorities. When the service levy is invested WVD creates partnerships with other agencies and attracts other funds to make these priorities happen faster. When the work is completed WestVic Dairy makes sure the findings are communicated to all dairy farmers to increase the profitability and sustainability of the region's dairy industry.

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# High interest in summer feeding tips

## Dairy Q&A night

NEARLY 100 farmers attended the Summer Feeding Q&A at the Noorat Football clubrooms on December 8.

The event was a collaboration between WestVic Dairy's Profitable Feeding Systems Initiative and the Department of Environment and Primary Industries (DEPI).

The Q&A session provided farmers with the opportunity to ask a panel of experts, the Leading Feeding Team, about summer feeding strategies.

The Leading Feeding Team consisted of a selection of experts in the field of cow nutrition and pasture management, such as Joe Jacobs and Bill Wales, from DEPI, commercial nutritionist Ian Sawyer and farm consultant Jeff Urie.

Noorat famer David Conheady moderated the night, which included topics such as efficient supplement feeding, sources of protein, changes to the rumen in summer, acidosis and characteristics of a balanced diet.

After an introduction of the panel, people were asked to write down their questions, which were sorted into groups during the barbecue dinner.

Mr Conheady then posed the questions to the panel, allowing farmers to ask supplementary questions as well.

Some of the key messages of the night were the importance of metabolisable energy in feed



The Summer Feeding Q&A session at the Noorat Football Club.

when comparing costs, as well as the importance of quality when formulating rations and producing silage.

Project officer at WestVic Dairy Liza Fahey said the large turnout on the night demonstrated the relevance of the workshops.

"Having nearly 100 farmers take time out of their busy schedule to come along to a night session really shows how relevant these workshops are," she said.

"It has been a tough season for many farmers and it was great to see that so many took a proactive approach to their feeding strategies."

The Q&A evening was

followed by field days on dairy farms in Larpent, Macarthur and Jancourt the next day.

Each of the days attracted close to 30 participants and the hosting farms were used as case studies to discuss how to best utilise resources over the dry months.

DEPI's project leader for Dairy Feeding Systems Mike Boyd said both the barbecue dinner and the field days were highly successful and the feedback had been very positive.

"Our feedback forms showed that farmers were not only very satisfied with the night, but thought it will help them to make more cost-effective decisions regarding rations for

their cows," he said. "Having such a diverse panel was great because each brought a different perspective, which made for some interesting discussions."

Mr Boyd also said that farmers commented on how useful it was to follow the night session with the field days.

"It enabled farmers to put what they had learned the night before in a practical application on the case-study farms," he said.

"It also reinforced some of the key messages from the night before, such as the importance of focusing on quality, rather than quantity when it comes to silage."

## WestVic team wins challenge

WESTERN Victoria came out on top at last week's inaugural National Dairy Challenge in South Australia.

The competition was held on the Fleurieu Peninsula on December 3 and 4 and tested young dairy farmers for their industry knowledge.

It was held for the first year and, according to DairySA organiser Penny Schulz, it was a huge success.

The event was developed by Mrs Schulz and supported by the Young Dairy Network Australia (YDNA), Dairy SA and the Future Farmers Network.

Milk quality, pasture management and animal health were some of the challenges the six teams faced over two days, testing a diverse range of knowledge needed on a dairy farm.

The team from Western Victoria, consisting of Michael Hawker, Maddie Campbell, Ebony Churchill and Nicole McRae represented the western Victorian branch of the Young Dairy Development Program (YDDP) and WestVic Dairy.

They were announced overall winners after scoring an impressive 1154 points, more than 10 points ahead of the runner-up team, Subtropical Hotties.

South West YDDP co-ordinator Liza Fahey said she was proud of the WestVic team and its commitment to the industry.

"These young farmers show



The winning WestVic dairy team (from left) Michael Hawker, Nicole McRae, Maddie Campbell and Ebony Churchill.

how being part of the YDDP has not only developed their leadership skills but their knowledge about dairying," she said.

"The National Dairy Challenge is a great way to bring many young farmers together to extend their networks and their knowledge of the dairy industry."

Heywood dairy farmer Michael Hawker also secured the highest individual score.

Mr Hawker said he was proud to be able to bring home the title for the WestVic Dairy region and

that being part of the YDDP had helped him achieve this success.

"It wouldn't be possible without Liza (Fahey's) motivation and passion towards steering us all in the direction of growing both our knowledge and personal development," he said.

"So on behalf of the team, thank you."

#### RESULTS: Pasture management and nutrition category

Paul Roderick - 91.9 Points

Animal breeding and assessment

Michael Hawker - 83.3 Points

Milk processing and quality

Sue Dowling - 70.5 Points

Animal health and body condition scoring

Madeline Campbell - 81.4

Individual highest scores

Winner - highest individual score

Michael Hawker - 319.9

Runner-up highest score:

Brad Fairbrass - 314.6 Points

Highest team scores

winner

1. Westvic Dairy - 1154 Points

Runner-up

2. Subtropical Hotties - 1142 Points

Placement of other teams

3. Western Dairy

4. Fleurieu Young Dairy Farmers

5. Nangkita Dairy

6. Yddp Gippsland

# WestVic Dairy Business

## Focus Farms

### Heathmere

Date	December 16, 2014
Milking Area (ha)	305
<b>Production</b>	
Cow Numbers	459
kg Milk Solids/cow/day	1.54
Litres/cow/day	19.1
Fat%	4.65
Protein %	3.42
<b>Grazing and Supplement Feeding</b>	
Pellets 41.7c/kgDM (\$375/t)	5.85
Silage (Pasture 12c/kgDM)	4.4
Vetch hay 35c/kgDM (305/t)	2.1
Pasture (kgDM) approx.	1.5
Lucerne Grazing (kgDM) approx.	2
Area in rotation (ha)	280
Rotation Length (days)	Semi Sacrifice
Grazing area (ha/24hrs)	1.5 - 2
<b>Daily Income overSupplementary Feed Costs (IOSFC)</b>	
December Milk Price (\$/kgMS)	\$5.51
Income/cow	\$8.48
Supplementary Feed costs/cow	\$3.69
IOSFC/cow	\$4.78
IOSFC/ha	\$7.19

# Cost of pasture has not been included. This will range from 10c – 20c per kg DM during the year

## Milk price is current announced total package and inclusive of productivity and quality.

459 cows in vat producing 1.54kgMS/cow/day. The herd is now on a sacrifice paddock at night with silage and hay. Strip grazing lucerne with an estimated intake of 2.1kgDM and 1.5 - 2 hectares of grass in the morning. Cow condition is rising. Bulls have been put back in with the herd to mop up empty cows. These will possibly be sold later as in calf animals. The oats and peas crop has failed to bulk up sufficiently to harvest and is being grazed by the calves, 120 calves on 8 hectares. It is estimated that this will provide a month's grazing for the calves.

### Timboon

Date	December 1, 2014
Milking Area (ha)	303
<b>Production</b>	
Cow Numbers	280
kg Milk Solids/cow/day	1.75
Litres/cow/day	23.4
Fat%	3.82
Protein%	3.64
<b>Grazing and Supplement Feeding</b>	
Grain 36.9c/kgDM	6.6
Silage (Pasture approx. 0.15c/kgDM)	0.8
Pasture (kgDM) approx.	11.8
Area in rotation (ha)	156
Rotation Length (days)	21
Grazing area (ha/24hrs)	7.5
<b>Daily Income overSupplementary Feed Costs (IOSFC)</b>	
December Milk Price (\$/kgMS)	\$5.21
Income/cow	\$9.12
Supplementary Feed costs/cow	\$2.43
IOSFC/cow	\$6.69
IOSFC/ha	\$7.22

# Cost of pasture has not been included. This will range from 10c – 20c per kg DM during the year

## Milk price is current announced total package and inclusive of productivity and quality.

400 dry cows still grazing milking area. Getting 4.5kg DM pasture hay and 2.5kgDM last year's silage plus 2 ha pasture per day. Calving start is 1st January 2015. Pasture silage harvest resulted in 2300 round bales at about 330 kg DM per bale, 18.8% Protein and 10.5 MJME/kg. This will be enough silage to feed 7 kg DM per day through to the end of June. With 560 tonnes of purchased hay on farm now the forage requirements for next year are covered. Feed pad concreting and calf shed refurbishment are now underway. Completion is expected by the end of December.

### Barongarook West

Date	December 5, 2014
Milking Area (ha)	249
<b>Production</b>	
Cow Numbers	340
kg Milk Solids/cow/day	1.73
Litres/cow/day	24.3
Fat%	3.86
Protein%	3.29
<b>Grazing and Supplement Feeding</b>	
Pellets 42.5c/kgDM (\$386/t)	4.5
Silage	0
Hay	0
Pasture (kgDM) approx.	11
Area in rotation (ha)	187
Rotation Length (days)	54
Grazing area (ha/24hrs)	3.5
<b>Daily Income overSupplementary Feed Costs (IOSFC)</b>	
December Milk Price (\$/kgMS)	\$5.49
Income/cow	\$9.49
Supplementary Feed costs/cow	\$1.91
IOSFC/cow	\$7.58
IOSFC/ha	\$10.30

# Cost of pasture has not been included. This will range from 10c – 20c per kg DM during the year

## Milk price is current announced total package and inclusive of productivity and quality.

Currently 340 cows in the vat (148 stale, 192 fresh), 23 dry's, colostrum's and treatment cows.

The 67 rising 2 year Autumn born heifers have come back from agistment. The 38 rising 2 year Spring born heifers due back from agistment this week. 23 rising Autumn born calves have been sold, leaving 42 on the property. There are 90 weaned Spring calves.

Average pasture cover 2276kgDM/ha. Whole farm average growth rate calculated at 25kgDM/ha over the last 30 days. Silage completed, 1130 rolls made, with 21ha shut for hay. Effluent applied to pasture on 25 November at 13-16mm over 26ha and has provided excellent regrowth. Pasja forage brassica crop measured at 3.3tDM/ha.

### DemoDAIRY Terang

Date	December 12, 2014
Milking Area (ha)	140
<b>Production</b>	
Cow Numbers	231
kg Milk Solids/cow/day	1.33
Litres/cow/day	17.7
Fat%	4.10
Protein%	3.38
<b>Grazing and Supplement Feeding</b>	
Pellets 35c/kgDM	6.3
Silage	1
Hay (Cereal 0.26 ct/kgDM)	2.6
Pasture (kgDM) approx.	5.1
Rotation Length (days)	27
Grazing area (ha/24hrs)	4.5
<b>Daily Income overSupplementary Feed Costs (IOSFC)</b>	
December Milk Price (\$/kgMS)	\$5.61
Income/cow	\$7.45
Supplementary Feed costs/cow	\$3.02
IOSFC/cow	\$4.43
IOSFC/ha	\$7.31

Began feeding hay and silage last week and will need to increase silage as pasture becomes less available. Pellets have been increased to 7 kg. 21 cows were culled at the start of December. May cull more cows after the pregnancy test due next week and aiming to do most of our culling now. All fodder requirements have been secured.



Your Levy at Work

Dairynews

## More choice for dairy farmers

WHEN it comes to selecting bulls to use over their herds, dairy farmers will have more choice when three new breeding indices become available with the April ABV release.

The new indices were announced at the Australian Dairy Industry Council annual breakfast, held in Melbourne recently.

Daniel Abernethy, general manager of Australian Dairy Herd Improvement Scheme (ADHIS), said three indices were aligned with farmers' differing breeding priorities; and developed following an extensive review process which involved direct farmer input on trait preferences and breeding philosophies.

"It was clear from farmer feedback that while farm profit was a national breeding objective, certain farmers placed more emphasis on different traits when making bull selection decisions. This finding supported the introduction of multiple indices," Mr Abernethy said.

The three indices are: the Balanced Performance Index, Type Weighted Index and Health Weighted Index (see box).

"While all three indices include traits that influence profitability, the focus on profitability and achieving desired gains for particular traits differs.

"The Balanced Performance Index achieves the National Breeding Objective of increasing



Holstein Australia president and Terang dairy farmer David Johnston is excited about the possibilities the new indices present for dairy farmers.

farm profit and will align to the breeding priorities of most Australian dairy farmers. In addition, two extra breeding indices have been developed to meet the needs of those farmers whose breeding philosophies put increased emphasis on type or health."

Holstein Australia president and Terang dairy farmer David Johnston said the new indices would be of great interest to Holstein Australia members.

"Fertility and cell count have been particularly difficult to make decisions about in the past, he said.

"Personally, I will probably

### Dairy's three new breeding indices

**Balanced Performance Index:** focuses on maximising net profit through production, fertility and type; will replace the current Australian Profit Ranking (APR).

**Type Weighted Index:** focuses on improving overall type, mammary system, udder depth and fore udder attachment.

**Health Weighted Index:** strongest focus on fertility, cell count and survival.

shortlist bulls based on the Type Weighted Index, then look at their Health Weighted Index to see what I'd be trading off on that front.

"The benefits of having three indices to choose from to match your breeding preferences will apply to all Australian dairy farmers, not just HA members".

ADHIS is an initiative of Australian Dairy Farmers that receives the majority of its funding from Dairy Australia through the Dairy Services Levy.

For more information contact Michelle Axford at ADHIS on (03) 8621-4240 or email maxford@adhis.com.au



Managing pastures well over summer will assist with pasture persistence.

# Ryegrass in focus

By MICHELE RYAN  
Dairy Extension officer,  
DEPI Warrnambool



AS we are prone to long, dry summers, ryegrass survival is a major issue on many dairy farms in the south-west. While prolonged periods of low soil moisture are beyond our control, there are some things we can control which will assist pastures to make it through the summer.

Summer rainfall distribution is probably more important for perennial ryegrass survival than the absolute amount of rainfall. When rainfall is sufficient to ensure plants have access to water most of the summer, the plants survive. When there is so little rainfall that the plants go into dormancy and don't break dormancy until conditions are cooler and moist, plant survival is high.

However, if summer rainfall is followed by a dry period, tiller buds break dormancy, grow and die in the hot, dry conditions. Sporadic summer rainfall is a common occurrence in south-eastern Australia and if summer rain is followed by dry periods of more than about 30 days, some plants are likely to die.

Here are some pasture management tactics to use that will help perennial ryegrass to survive summer.

#### Don't overgraze perennial ryegrass in summer

Even though perennial ryegrass is dormant over summer, it is still very susceptible to overgrazing. Overgrazing

can damage the growing point, which is located at ground level; and this just kills the plant. Maintaining a five-centimetre grazing residual and some herbage cover over summer protects green tillers by reducing the temperature at ground level. Consider using sacrifice paddocks to minimise overgrazing across the farm.

#### Strategic grazing of new tillers after summer rainfall

New tillers that grow after summer rainfall become stressed by the return of hot, dry conditions and heavy grazing compounds this stress. If the plants are severely grazed in summer when they also face the pressure of unfavourable climatic conditions, their survival is likely to be jeopardised. A long rotation over summer ensures that the perennial ryegrass is not frequently grazed. Tillers emerge within days of summer rainfall. Therefore using a rotation that ensures perennial ryegrass in most paddocks is not grazed soon after summer rainfall should assist perennial ryegrass survival in those paddocks.

#### Sow persistent perennial ryegrass cultivars for your area

There can be big differences in persistence of different perennial ryegrass cultivars. Check with local agronomists and neighbours as to which perennial ryegrass cultivars are persisting well under your local conditions.

#### Maintain a longer rotation over summer

Local research has shown that by maintaining a long grazing rotation (45 days or longer) in summer, that a pasture is one grazing rotation ahead of pasture that has been grazed more frequently (30 days or less). The reason is that frequently grazed pastures have reduced vigour and growth potential compared to the pastures that have a longer grazing rotation.

By ensuring that pasture rotations are maintained at an appropriate length and a five-centimetre grazing residual is maintained you are making sure that your perennial ryegrass pastures persist and then flourish in the following autumn.

To discuss your situation contact Michele Ryan on (03) 5561 9914 or 0428 581 883.



## Get the most out of your workforce

Our InCharge Human Resources workshop offers three days packed with information about maximising employment on your farm. Each day will provide you with relevant resources to apply in your own business.

#### Day one - Compliance

- Employment Starter Kit (ESKi)

#### Day two - Developing Staff Culture

- Getting the most out of your staff
- The People in Dairy Website

#### Day three- People Planning

- Workforce Planning Template

WHEN: 10,17 and 24 February 2015  
or 11, 18 and 25 February 2015

WHERE: TBC

For more information and to register your interest please contact WestVic Dairy on:

E: amanda@westvicdairy.com.au

T: (03) 5557 1000

This workshop is funded by Dairy Australia and the Dairy Service Levy.

# Updated SMS heat alerts

TAKING the best care of a dairy farmer's second most important investment, their cows, becomes even more important in the summer months when heat stress can severely affect production yield and cow health.

*Cool Cows* provides information for dairy farmers and their advisers to keep cows cool and reduce the effects of heat stress.

"Dairy Australia has listened to feedback and *Cool Cows* has been refreshed and the alert service updated to include more options to personalise where and how often you receive your weather alerts, and can be customised to deliver forecasts for your exact farm location," said Catherine Phelps, Dairy Australia's Natural Resource

Management Program manager. "The effects of heat stress include a drop in milk production, reduced herd fertility and lower milk protein and fat tests. During the 2014 January heat wave the average drop in milk production across Victorian herds was 15 per cent (based on milk tanker volumes) and heat stress can trigger live weight losses and create animal health problems."

Dairy Australia's free tailored weather forecast service sends an SMS directly to a farmer's phone alerting of upcoming hot spells that could impact on the health and wellbeing of their herd.

"Any dairy farmer in Australia who registers with the service on the *Cool Cows* website receives site-specific

weather forecasts and alerts of hot weather events specifically for their own farm, which they get by inputting longitude and latitude data describing their location," said Dr Steve Little, from Capacity+ Ag Consulting, a company working with Dairy Australia on the system.

## Tips to reduce the impact of heat stress on milk production

Anticipate high risk weather conditions. These are periods of sustained high daytime temperatures and high overnight temperatures. Make sure everyone on the farm can recognise the signs of heat stress: cows panting more than 60 breaths per minute, drop in milk production and what action to take.

Increase access to cool drinking water, particularly

at the exit to the dairy — in hot weather cows will drink 200-250 litres per cow per day

Provide access to shade. The best way to help cows beat heat stress is to shade them from radiant heat

Adjust milking times to cooler parts of the day

If you have a sprinkler system — use it. For a sprinkler system to be effective and cost-efficient, without raising the risk of milk quality downgrades, aim to have the sprinklers on for three minutes then off for eight minutes, using a moderate to large water droplet rather than a fine mist

Provide cows with the highest quality pasture available to graze overnight when they are cooler.

## Cool Cows website

The *Cool Cows* website

has detailed, practical information on cooling infrastructure. This information is also available in a booklet, "Shade, sprinklers and fans on dairy farms". Free copies are available from Dairy Australia (Ph. 1800 655 441, [inquiries@dairyaustralia.com.au](mailto:inquiries@dairyaustralia.com.au)) or download as a pdf from the Dairy Australia website.

Recent research studies have also shown the negative impacts that hot conditions can also have on dry cows.

"Up until now we haven't focused on the effects that heat can have on dry cows, but recent studies indicate there is quite an impact on the dry cow's placenta and her developing udder, leading to reduced calf birth weights and viability, and reduced milk production in the next lactation. Farmers

with autumn calvers should consider how much paddock shade is available over the hot summer months when they are dry."

Dr Little said farmers should take advantage of the resources and tools on the *Cool Cows* website.

"I would urge all farmers to make use of this fantastic resource by registering their farm for site-specific forecasts and alerts," he said. Sign up here for the alerts it only takes a minute: <http://www.coolcows.com.au/subscribe.htm>

*Dairy Australia is the national services body for the Australian dairy industry. The company acts as the collective investment arm of the industry, investing in essential research, development, extension and industry services.*

## Improved management cuts emissions, lifts profit

IN recent times much work has gone into investigating improved management practices that reduce greenhouse gas emissions from dairy farms.

A significant finding from this work has been that not only do these practices reduce farm emissions, but importantly most also improve the efficiency of production and farm profitability.


As a result it makes good business sense to adopt these improved practices.

Dairy Australia has received funding from the Australian Government's Extension and Outreach Program to identify and promote these improved practices.

As part of this work the NRM Technical Specialist Team has prepared eight fact sheets that explain the various options for improved management in four key areas. Improvements in the areas of nitrogen

### SOUTH-WEST EXTENSION NOTES

Ian Linley  
Regional Extension Co-ordinator  
WestVic Dairy



fertiliser use, feeding, herd and breeding management and effluent management have been found to be some of the most practical and effective ways of both reducing emissions and increasing profitability.

Two sets of fact sheets on these topics are available: the first being two-page sheets aimed to give dairy farmers an overview of the key points and recommendations, and a second set that gives more of the detail of the underpinning science and practices.

All these fact sheets are available for viewing and downloading on the *Dairying for Tomorrow*

website (<http://www.dairyingfortomorrow.com>). Follow the links to publications and then Profitable Dairying in a Carbon Constrained Future.

Some of the key points that have been identified for each topic are:

### Get your nitrogen fertiliser strategy right:

Poor nitrogen fertiliser management not only wastes money but also increases greenhouse gas emissions.

Apply nitrogen fertiliser when the pastures will respond, at a rate they can utilise and when soil and weather conditions are less likely to cause losses.

Getting effluent management right: Effluent should be viewed as a valuable source of nutrients which can be recycled onto the farm to offset purchased fertiliser, save money and reduce emissions.

Apply best practice nitrogen management to effluent reuse to get the most value out of the nutrient content and reduce emissions.

Getting the cows' diet right: Monitor and supplement diets throughout the year.

A balanced, high quality diet will maximise milk production and minimise greenhouse gas emissions



Methane from cows is the largest source of emissions from the farm.

per litre of milk. Include fats and oils as feed supplements to increase milk production and reduce methane emissions if dietary levels are below 2-3 per cent.

### Getting herd and breeding management right:

Unproductive animals cost money to maintain, and continue to produce greenhouse gas emissions during their unproductive periods.

The key ways to reduce unproductive periods are through timely mating, fertility, reducing replacement rates and increasing lifetime cow production.

For more information about WestVic Dairy's Profitable Dairying program contact Graeme Ward, Dairy Australia NRM Technical Specialist, south west Victoria on 0428 573 280 or [graeme.ward57@bigpond.com](mailto:graeme.ward57@bigpond.com)

## Providing a stepping stone into the industry

THE Stepping Stones resource, which is a collaboration between WestVic Dairy and Dairy Australia, is all about showing the many pathways that are available in the Australian dairy industry, according to WestVic Dairy's Workforce Support for Dairy Farmers Karen Hart.

Mrs Hart said the resource was a great tool for a range of people looking at starting a career or wanting to progress within the industry.

"Some people may be thinking about starting a career as a trainee on a dairy farm and continue to have aspirations to operate their own dairy farm business through management or ownership," she said.

"Others may be currently

working in the industry and looking for opportunities to progress their position to a more senior role.

"Stepping Stones provides a number of pathways on how to enter and progress careers in the Australian dairy industry, and includes qualifications and skill acquisition at each stage."

Stepping Stones identifies options for part-time introductory roles in the dairy industry, which can be a permanent part-time position, such as a relief milker or a specialist calf rearer. The skills required for these roles are identified and future possible roles and responsibilities that this experience can lead to.

Stepping Stones can be used

by employees, employers, educators and service providers to help identify strengths and opportunities for employees.

It is also a great tool for increasing labour efficiency with clear roles and responsibilities outlined for each position.

The Dairy Career Planner section can also provide clear goal setting for individuals to ensure they are progressing through their career.

Warrnambool Cheese and Butter Factory (WCBF) field officer James Maxwell used the Stepping Stones resource as a learning tool during the Adrian Meade Innovation Program for year 10 and 11 students. The program exposes different career opportunities in the dairy industry, from the farm

gate to customer program.

"We used the resource to develop a five-year plan of what they wanted to do and how to get there," Mr Maxwell said.

"Those that hoped for a farming career gave lots of examples of pathways.

"I think the Stepping Stones tool really highlighted the many steps it takes to get to where they want to and where they are now."

Stepping Stones also allows for self-analysis and goal setting. Mr Maxwell said he used this Career Planner section and to encourage participant to think about where they were now including skills, ability, equipment and what they needed to be a successful

farm business manager, herd manager or farm hand.

"This included what qualifications would recognise their level of competence and training necessary to gain the skills required and there was also the discussion about the things they were interested in but also the skills they weren't interested in but were necessary in running a dairy industry," he said.

Through the use of the Stepping Stones resource, discussion and career planning for the initial stages of dairy farm career remained focussed and informative.

Mr Maxwell said he recognised the challenges of setting goals and planning for the future, but appreciated the

guidelines of the Stepping Stones and how the information was sequential when talking about career development.

"Obviously not all participants knew what they wanted to do but there was plenty of discussion points to think about and they were able to take the booklet home to think about some more.

"This is fantastic as there are people in our community that they can relate to, telling the stories of their career".

Stepping Stones is available for all dairy farm owners and employees. Please contact WestVic Dairy on (03)5557 1000 to get a copy or contact Karen Hart 0428 086 807 for further information.



Your Levy at Work

Dairynews



Larpet dairy farming family (from left) Biddy, Henry, Sam, Bella and Tom Billing. Photo taken by dad, Mark Billing.



Some members of the Heathmere business focus farm team (from left) facilitator Angus Drummond, support group member Lachlan Tindall and Focus Farmers Casey and Bonnie Taylor.

# Legendairy campaigners

Dairy Australia's Legendairy campaign has been celebrating and promoting dairy all over Australia in the past year. These south-west farmers have embraced the campaign and are giving Legendairy the thumbs up.



Young Cobden farmer Ally Dickson was sporting her vest at the Noorat show in November.



Legendairy Nullawarre farming youngsters (from left) Zach, Sean and Sam Lenahan.



Legendairy Heywood dairy farmers (from left) Isaac TeWheoro (21C) and owner/managers Tania and Stephen Luckin.



Timboon P-12 grade 3 pupils think western Victoria is LEGENDAIRY!



Business Focus Farmers Renee, John and Mat Whitehead on their farm in Timboon.

## NATIONAL CENTRE FOR DAIRY EDUCATION

### JANUARY

IN order to help dairy farmers manage and mitigate production, water, inputs and other seasonal risks a series of Business Health Check workshops have been developed.

The workshops are designed to help dairy farm businesses fine-tune their management to optimise performance and profit.

The workshops will focus around working through what the best options are for your business and will include an examination of the characteristics of profitable farms.

Participants will be provided with some practical

take-home tips to help refine plans and build resilience into the farm business. Each day will also include a 30-minute forum for participants to discuss their most relevant seasonal issues.

The three workshops will focus on:

1. Production targets and current position: how are the different parts of your business performing?
2. Understanding the mix of risk: utilising the latest information around water, cost, returns and water budgeting.
3. Risk Management plan: finance, cash flow, labour, feed, fodder and personal risk.

Please register your interest for sessions to be held in 2015. Contact Michelle Easterbrook, NCDE Terang on (03) 5592 2437 or 0407 552 011.

### Diploma & Advanced Diploma Of Agriculture

THE National Centre for Dairy Education (NCDE) has a vision to develop the best dairy people in the world.

The NCDE Diploma is unique because it's made up of industry-recognised training units designed to develop a systems management approach to the farming business components. Much of the appeal of the diploma is found in its practical management

focus, with a great deal of the material presented by guest speakers who are champions in their fields.

The Advanced Diploma will enable participants to develop a strategic plan to manage sustainability, change and risk. It will also require the development and monitoring of a five-year operational and development plan for the key production areas of their dairy business.

While the Diploma of Agriculture has been designed to provide the knowledge and skills required to undertake Farm Production Management, the Advanced Diploma of

Agriculture has been specifically designed to provide appropriate vocational skills, knowledge and behaviours required by a dairy business manager. Enrolments are now open.

For information on these programs, please contact: Advanced Diploma and Diploma – Bec Huth, rhuth@gotafe.vic.edu.au

For general information on all our courses, please contact NCDE at 7161 Princes Highway, Terang, or phone (03) 5592 2482 or 0407 552 011.

### DECEMBER & JANUARY Enrolment Day 2015

NCDE will be holding an

enrolment day on Thursday, January 15, at NCDE offices, 7161 Princes Highway, Terang.

The day will be to finalise enrolments for students to begin the 2015 educational year. All returning students and anybody interested in enrolling in a course in 2015 is encouraged to attend on the day.

There will be staff on hand to discuss what courses are available to undertake during 2015.

If you would like any further information, please contact Michelle Easterbrook NCDE Terang on (03) 5592 2437 or 0407 552 011.

# Easy recipes for children



SOME Legendairy recipes that will get your kids excited this summer.

## Fruit Pops with Marshmallow Yogurt Dipping Sauce

Serves 4

### Ingredients

250g punnet strawberries, hulled  
2 medium kiwifruit  
2 bananas  
500g cantaloupe  
500g watermelon

12 bamboo skewers or lolly pop sticks

100g marshmallows  
400g reduced fat strawberry yoghurt

### Method

1. Peel fruit and into 1-2cm slices. Use a small round cutter to cut rounds from the watermelon and cantaloupe. Thread fruit rounds onto skewers.

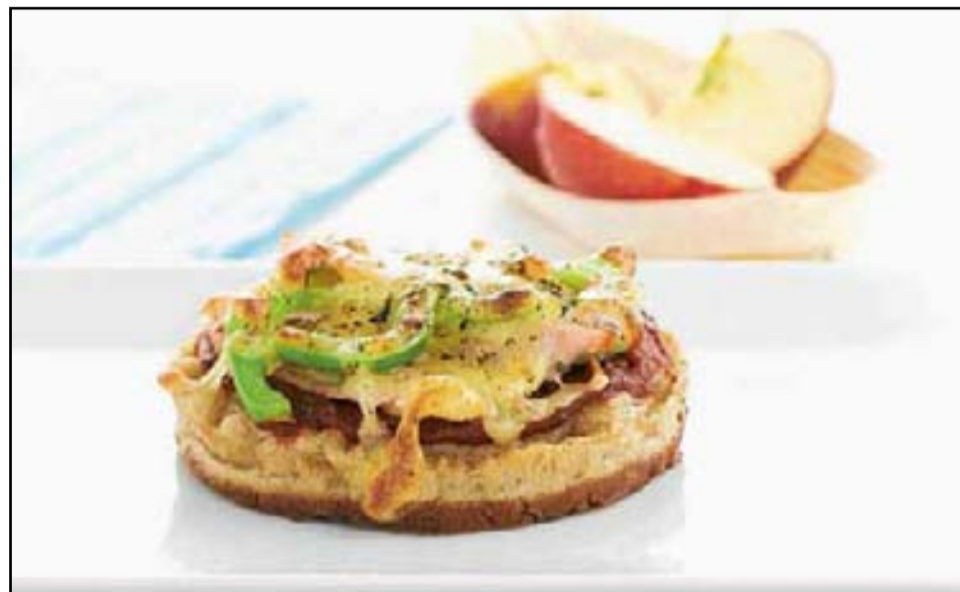
2. Place marshmallows in a microwave safe bowl with

1 teaspoon water. Microwave on high for 15-20 seconds until just melted and stir until smooth. Fold in yoghurt and pour into a serving bowl. Refrigerate until ready to serve.

3. Serve yoghurt dip with fruit skewers for dipping.

**Additional Information**  
Preparation time: 10 minutes.

In a hurry, serve the dip on a platter with the chopped



fruit and forks for the kids to dip.

## Pizza Crumpets

Serves 2

### Ingredients

2 wholemeal crumpets  
1 tablespoon salt reduced tomato paste  
1 shaved slice lean ham, chopped  
1 button mushroom, thinly sliced  
1/4 green capsicum, thinly sliced

1/2 cup reduced fat Australian mozzarella cheese

1/2 teaspoon dried oregano

### Method

1. Spread each crumpet with tomato paste.

2. Top crumpets with ham, mushroom and capsicum then sprinkle with cheese and oregano.

3. Grill crumpets under a hot grill until cheese is golden and crumpets are crisp. Serve immediately.

### Additional Information

Preparation time: 10 minutes.

Cooking time: 5-10 minutes. This is a great recipe for kids to get involved with on the weekend.

Pizza crumpets make a great after-school snack perfect to fuel up before or after sports.

Add sliced baby button mushrooms to topping ingredients, if desired.

## Dairy tips for January

If you have managed to grow a decent summer crop and are about to start feeding it, check with your nutritionist that you have adequate buffering in the grain/pellet. This can be a particular issue when high levels of cereal grains are being fed, along with silage (pH around 4.5) and then adding 3-4 kg dry matter of summer crop. On top of this, hot weather reduces the amount of bicarb that the cow produces naturally. It is not uncommon to see acidotic cows during the summer for these reasons, particularly if the grain/pellets haven't been modified accordingly.

Ideally the summer crop should be fed after lunch or even after the PM milking, although this is often not practical. This allows the crop to build up sugar levels throughout the day so that it is a better balanced feed for the cows. If you have to feed the crop straight after the morning milking try to ensure the cows get access to hay or silage as soon as possible after eating the crop.

If you are trying to work out how much crop the cows are eating, a rough rule of thumb is that they will eat about 2kg dry matter in the first hour and 1kg dry matter every hour after that. Remember that this is genuine grazing time, not just the amount of time the cows are left in the crop paddock. You may need to check on them periodically to work out how long it takes them to graze the strip that you have allocated. This will give you a bit of a guide.

Don't let your cows suffer in the heat. Remember to put them in shady paddocks with good water availability during the day and feed extra hay or silage at night to allow them to compensate for what they don't eat during the day. You might also increase the feed rate of grain/pellets in the dairy (0.5-1 kg per cow per day) for the hot period to increase their energy intake

### PROFIT PROPHET

A Profitable Feeding Systems initiative

to help ensure milk production doesn't suffer too much.

Remember that once there is no paddock feed, you will need to offer somewhere between 10-12kg dry matter of hay or silage per cow per day. By the time you allow for wastage (roughly one quarter of what you feed if it is fed out in the paddock), you will need to feed just under 15kg dry matter of silage (around 50 per cent dry matter in a bale or 30 per cent dry matter in the pit) or up to 18kg hay. If you are feeding a 330kg bale of hay, each bale will feed just under 40 cows per feed (day or night feed). If it is round-bale silage a 550kg bale (as fed) will feed about 36-38 cows each feed (day or night feed). It is important to keep your cows full as much as possible to avoid health issues and to maximise feed conversion efficiency.

Having highlighted the amount of hay that needs to be fed to achieve a reasonable level of intake (for the cow), you can appreciate that purchased hay can become very expensive if the cows don't produce well from it. This will involve making sure you buy the right quality of hay for the requirements of your cows, as well as ensuring that the overall diet remains balanced. Also, anything you can do to minimise wastage will be beneficial. If you haven't used a nutritionist to help keep the cows on track before, this year might be a good opportunity to start. If you aren't sure who to ask for help, talk to WestVic Dairy for some suggestions as to who might suit your farm. Don't miss the opportunity to make the most of this year's milk price.

(A project of WestVic Dairy and funded by the Dairy Australia farmer levy.)



## AVAILABLE : Tailor-made workshops delivered on-farm

WestVic Dairy has funding available in 2015 to hold information sessions for groups of interested farmers.

### Topics include:

- Rearing Healthy Calves
- Heifer management (Heifers on Target)
- Transition management
- Mastitis (Countdown 2020)
- Fertility (InCalf)
- Lameness
- Downer cows
- Minimising heat stress (Cool Cows)
- Monitoring parasites in heifers

Workshop content can be tailored to meet the needs of your group.

Let us know what you want!

Call WestVic Dairy on

(03) 5557 1000 or email

amanda@westvicdairy.com.au

These workshops are funded by Dairy Australia and the Dairy Service Levy.



Your Levy at Work

Dairynews

## WHAT'S ON

### JANUARY 5 - 9

EVENT: 2015 National All Breeds Dairy Youth Camp  
 TIME: 12pm – 4.30pm  
 WHERE: Royal Melbourne Showgrounds  
 CONTACT: Beate Barnes  
 (03) 5833 2847

### JANUARY 15

EVENT: NCDEA Enrolment Day  
 TIME: 10am – 3pm  
 WHERE: Terang  
 CONTACT: Michelle Easterbrook  
 (03) 5592 2437

### JANUARY 17

EVENT: SA Dairy Farm Tours  
 TIME: 10.30am – 9.30pm  
 WHERE: leaving from Heywood  
 CONTACT: Amanda Heard  
 (03) 5557 1000

### JANUARY 29

EVENT: What should the budget look like when applying for a loan?  
 TIME: 11am- 1.30pm  
 WHERE: Warrnambool  
 CONTACT: Amanda Heard  
 (03) 5557 1000

### FEBRUARY 4

EVENT: New Dairy Technology and how it's improved  
 TIME: 11am  
 WHERE: Timboon  
 CONTACT: Amanda Heard  
 (03) 5557 1000

### FEBRUARY 10, 17 AND 24

EVENT: InCharge Human Resources  
 TIME: TBC  
 WHERE: TBC  
 CONTACT: Amanda Heard  
 (03) 5557 1000

### FEBRUARY 11, 18 AND 25

EVENT: InCharge Human Resources  
 TIME: TBC  
 WHERE: TBC  
 CONTACT: Amanda Heard  
 (03) 5557 1000

### FEBRUARY 11-13

EVENT: Sungold Field Days  
 TIME: 9am – 4pm  
 WHERE: Allansford  
 CONTACT: Amanda Heard  
 (03) 5557 100

### FEBRUARY 12

EVENT: Annual Young Farmer Challenge  
 TIME: 12.30pm  
 WHERE: Allansford  
 CONTACT: Amanda Heard  
 (03) 5557 1000

# Nutrient planning: know your rights

By ALEX GOUDY

Dairy Team Leader, DEPI  
Warrnambool

AUTUMN is approaching and many dairy farmers are starting to think about pastures for the new season.

Now's a good time to plan fertiliser use to ensure that crop and pasture growth targets are met and feed budgets are filled. Blindly applying fertilisers at set rates is no longer an appropriate way to manage fertiliser use.

Nutrient planning is about applying the right source of fertiliser, in the right place, at the right rate, and at the right time. This is known as the 4Rs, the aim of which is to get the best pasture growth response from the fertiliser used.

Nutrient planning will often result in using less fertiliser on some parts of the farm, and more where it is really needed. The end result is efficient use of nutrients from both a dollar spent and pasture grown perspective.

#### Right source

Traditionally the main source of nutrients coming onto dairy farms has been in the form of synthetic fertilisers such as super phosphate, urea, potash and blends. Today there is increasing interest in using alternative fertilisers such as composts, manures, biological stimulants, etc.

Application of these products should follow the same principles as synthetic fertilisers. The supplier of the product should provide a chemical analysis so that you know exactly what nutrients you are applying and can calculate an appropriate rate. This will also allow you to compare different fertiliser products on a "dollar per kilogram of nutrient" basis.

Alternative fertilisers such as composts and manures contain nutrients in organic forms which are not immediately available to plants.

The amount and timing of nutrient availability varies for different products, so consult your agronomist when planning to use these products.

The right source of nutrient to apply will depend on the cost per unit of element that is required, as well as the combination of nutrients. In some



Nutrient planning is about applying the right source of fertiliser in the right place at the right time.

cases applying a more expensive product that will not be lost (for example through leaching) before plants can access it, will improve nutrient use efficiency.

Effluent can also be a valuable source of nutrients that can reduce fertiliser costs. Approximately 10 to 15 per cent of the daily manure output generated by the dairy herd is collected as effluent. The nutrient concentration in effluent does vary, so getting effluent tested before applying it is important.

Bought-in feed is another source of nutrients coming onto dairy farms that should be considered when nutrient planning. Different feed sources have different nutrient concentrations and a substantial percentage of these nutrients are excreted by cows and will accumulate in feed-out areas.

#### Right place — creating farm management zones

Soil fertility varies depending on soil type, past fertiliser use and previous management. Generally, fertility levels are higher closer to the milking shed where cows spend more time and also where effluent is more commonly applied. Areas further from the shed where cows spend less time and are more often conserved generally have lower soil fertility.

Dividing your property into management areas based on soil type, past management and future rotation enables more accurate management of soil fertility.

These 'farm management zones' should have similar fertility and nutrient requirements. Soil fertility can be monitored in each management zone independently with annual or biannual soil tests. This minimises the costs of soil testing, while maintaining the benefit of ongoing monitoring.

#### Right rate: soil testing and using response functions

Applying an appropriate rate

of nutrients is key to efficient and profitable fertiliser use. Soil testing is crucial to inform you of the current fertility of your management zones.

Use of industry nutrient target levels that are based on fertiliser response curves will inform you if an economic growth response to the application of fertiliser is likely.

The best response to the application of fertiliser will occur where soil fertility is lowest, providing there are no other factors constraining growth, for example poor pasture quality, soil compaction or salinity.

A soil test will also tell you if there are other soil factors constraining plant growth. If these soil constraints are not addressed, an economic growth response to fertiliser application is unlikely.

Where soil fertility is very high, pastures will not respond to the application of fertiliser. That fertiliser would be better used in areas with lower fertility or not applied at all. Research has shown that if fertiliser is withheld, soil fertility will not crash, it will decline slowly over a number of years. This decline will be quicker in lighter than heavier soils. As long as soil fertility is monitored and remains above critical levels, crop or pasture yields are not impacted.

#### Right time

A nutrient plan should aim to apply fertiliser at a time when plants are actively growing without stress, and when the likelihood of nutrient loss is minimised. This will depend on the type of fertiliser being applied and the crop or pasture species it is being applied to. Applying fertiliser when soil temperature and moisture level is appropriate will increase plant uptake.

For example, ryegrass responds best to nitrogen fertiliser when soil temperatures are above 4°C and plants are not

under moisture stress. Avoiding the application of nitrogen when soil is waterlogged or dry will reduce losses.

Fertiliser application should also be avoided when run-off from heavy rain or irrigation is imminent, allowing at least four days, if possible.

If these guidelines are followed P, K and S fertiliser can be applied in summer and will not be lost.

Fertilisers should also be applied at a time when the additional growth will be utilised, either grazed or conserved. Applying fertiliser to grow extra feed that is not used is not profitable.

#### Take home summary

Nutrient planning is about getting the most profitable growth response from fertilisers used.

A nutrient plan should ensure fertiliser use follows the 4Rs - right source, right rate, right place, right time.

Measuring and monitoring soil fertility over a number of years is essential to confirm if nutrient requirements are being met.

Defining farm management zones based on soil type, past management and future rotation will enable more accurate monitoring and management of soil fertility.

Fertiliser should be applied at a time when the likelihood of nutrient loss is minimised.

Nutrient planning should be done along-side feed budgets to ensure that any fertiliser used increases pasture growth at a time when additional feed is required.

Current guidelines for nutrient planning including fertility target levels can be found at Dairy Australia's Fert\$mart website: <http://fertsmart.dairy-farmingfortomorrow.com.au/dairy-soils-and-fertiliser-manual/>

For more information contact Alex Goudy at DEPI Warrnambool on (03) 5561 9935.